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22907 7590 12/23/2008

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EXAMINER

BLAIR, DOUGLAS B

ART UNIT

PAPER NUMBER

2442

DATE MAILED: 12/23/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/531,534

03/21/2000

Hemant Madan

004770.00524

7125

TITLE OF INVENTION: SYSTEM AND METHOD FOR DELIVERY AND UPDATING OF REAL-TIME DATA

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$0	\$0	\$1510	03/23/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

22907 7590 12/23/2008

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I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/531,534	03/21/2000	Hemant Madan	004770.00524	7125

TITLE OF INVENTION: SYSTEM AND METHOD FOR DELIVERY AND UPDATING OF REAL-TIME DATA

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$0	\$0	\$1510	03/23/2009

EXAMINER	ART UNIT	CLASS-SUBCLASS
BLAIR, DOUGLAS B	2442	709-219000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
- 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

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Date _____

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This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/531,534	03/21/2000	Hemant Madan	004770.00524	7125
22907	7590	12/23/2008	EXAMINER	
BANNER & WITCOFF, LTD. 1100 13th STREET, N.W. SUITE 1200 WASHINGTON, DC 20005-4051			BLAIR, DOUGLAS B	
			ART UNIT	PAPER NUMBER
			2442	
			DATE MAILED: 12/23/2008	

Determination of Patent Term Extension under 35 U.S.C. 154 (b)

(application filed after June 7, 1995 but prior to May 29, 2000)

The Patent Term Extension is 0 day(s). Any patent to issue from the above-identified application will include an indication of the 0 day extension on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Extension is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability	Application No.	Applicant(s)	
	09/531,534	MADAN ET AL.	
	Examiner	Art Unit	
	DOUGLAS B. BLAIR	2442	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on 10/1/2008.
2. ☒ The allowed claim(s) is/are 1-6,8-17,19 and 35-40.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____. |
|---|---|

/Douglas B Blair/
Primary Examiner, Art Unit 2442

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Kenneth Smolik (Reg. No. 44,344) on 12/5/2008.

The application has been amended as follows on the next page:

In the claims:

1. **(Currently Amended)** A method comprising:
 receiving information at a content server from at least one content provider;
 storing at least one portion of the information;
 sending the at least one portion of the information to a user terminal for display on the user terminal;
 receiving, from an embedded applet in a remote mobile terminal, notification of active keys associated with a current display of the at least one portion of the information on the user terminal, wherein the notification is indicative of a change of an active key set when a page change occurs;
 receiving additional information at the content server, the additional information including a later version of the at least one portion of the information;
 identifying changed information parts by determining one or more differences between the later version of the at least one portion of the information and the stored at least one portion of the information;
 updating stored at least one portion of the information based on the changed information parts; and
 transmitting the changed information parts associated with the active keys to the embedded applet in the user terminal without also transmitting unchanged parts of the stored at least one portion of the information.
2. **(Previously Presented)** The method recited in claim 1, wherein the received information comprises a plurality of real-time data values.
3. **(Previously Presented)** The method recited in claim 2, wherein the received additional information comprises an additional plurality of real-time data values, and wherein the updating further comprises:

accessing a hash table containing the plurality of real-time data values using a plurality of keys associated with the plurality of real-time data values;

determining whether the additional plurality of real-time data values includes changes from the plurality of real-time data values contained in the hash table; and

updating the prior values of the plurality real-time data values contained in the hash table using values of the additional plurality of real-time data values that reflect determined changes.

4. **(Previously Presented)** The method recited in claim 3, wherein the transmitting comprises:

activating a data thread when a value of the plurality of real-time data values is updated in the hash table;

determining a position on a screen of the user terminal corresponding to the updated value in the hash table;

transmitting the updated value in the hash table to the user terminal for display on the screen of the user terminal in the position determined.

5. **(Previously Presented)** The method recited in claim 4, wherein the activating step comprises activating the data thread using remote method invocation.

6. **(Currently Amended)** The method recited in claim 3, further comprising:

spawning a data server thread in response to receiving a connection request from the user terminal;

retrieving, by the data server thread, a user defined portfolio containing a plurality of keys;

generating an activated HTML page containing the ~~an~~ embedded applet and sending the activated HTML page to the user terminal;

monitoring the plurality of keys contained in the user defined portfolio; and

identifying new active keys of said of the plurality of keys from the embedded applet.

7. **(Cancelled)**
8. **(Previously Presented)** The method recited in claim 6, comprising:
determining that a shutdown request has been made; and
disconnecting all connections to the user terminal in response to determining the shutdown request was made.
9. **(Previously Presented)** The method recited in claim 8, comprising:
retrieving real-time data values on a periodic basis.
10. **(Previously Presented)** The method recited in claim 9, comprising:
notifying the data server thread when a received real-time data value reflects a change over a previously received real-time data value.
11. **(Currently Amended)** The method recited in claim 6, comprising:
determining whether the ~~a~~-page change is required;
receiving, by the data server thread, a plurality of new active keys; and
transmitting the additional plurality of real-time data values to the user terminal through the data server thread using the new active keys.
12. **(Currently Amended)** A computer-readable medium having computer-executable instructions comprising:
a real-time data server code segment configured to receive real-time data values from at least one content provider, receive active keys that are associated with at least one portion of information currently displayed on a user terminal and when a page change occurs receive a change of an active key set from an embedded applet in the user terminal, determine changed data values by identifying one or more differences between the received real-time data values and prior real-time data values, and transmit one or more of the changed data values associated with one or more of the active keys to the embedded applet without also transmitting unchanged data values to the user terminal when any of the real-time data values associated with the one or more of the active keys has changed.

Art Unit: 2442

13. **(Previously Presented)** The computer-readable medium of claim 12, wherein the real-time data server code segment further comprises:

instructions executable to store the prior real-time data values in a hash table and update the stored prior real-time data values with the changed data values.

14. **(Currently Amended)** The computer-readable medium of claim 13, wherein the real-time data server code segment further comprises:

a web engine server module code segment to access a database having a portfolio generated by a user and generate an HTML page and the embedded applet, wherein upon receipt of a connection request from the user terminal the web engine server module code segment downloads the HTML page and the embedded applet to the user terminal.

15. **(Previously Presented)** The computer-readable medium of claim 13, wherein the real-time data server code segment further comprises:

a source filter server module code segment to receive the real-time data values, determine if the real-time data values reflect changes from stored prior real-time data values, and activate a data thread code segment when a real-time data reflects a change from a stored prior real-time data value.

16. **(Previously Presented)** The computer-readable medium of claim 15, wherein the real-time data server code segment further comprises:

executable instructions to communicate to the user terminal from the source filter server module code segment through the data thread code segment.

17. **(Previously Presented)** The computer-readable medium of claim 15 wherein:

the source filter server module code segment includes instructions executable to update the hash table based on the received real-time values.

18. **(Cancelled)**

19. **(Previously Presented)** The computer-readable medium of claim 13 further comprising:

Art Unit: 2442

a web server module code segment to communicate to the user terminal and retrieve a portfolio specified from a database; and

a pagination engine module code segment, in communication with the web server module code segment, to create an HTML page and applet code segment based on the portfolio selected and the size of a screen on a user terminal.

20. **(Cancelled)**

21. **(Cancelled)**

22. **(Cancelled)**

23. **(Cancelled)**

24. **(Cancelled)**

25. **(Cancelled)**

26. **(Cancelled)**

27. **(Cancelled)**

28. **(Cancelled)**

29. **(Cancelled)**

30. **(Cancelled)**

31. **(Cancelled)**

32. **(Cancelled)**

33. **(Cancelled)**

34. **(Cancelled)**

35. **(Currently Amended)** An apparatus comprising:

a processor; and

a memory having stored therein machine executable instructions, that when executed, cause the apparatus to:

~~a source filter server module configured to~~ receive data from a real-time content provider, and store the received data in a keyed hash table;

~~a real-time data server module comprising submodules including:~~

~~a client connection submodule configured to~~ establish a data server thread connection with a remote mobile terminal;

~~wherein the real-time data server module is configured~~ perform operations either when a the data server thread connection receives an active key request from an embedded applet in the remote mobile terminal that is indicative of a change of an active key set for a page change and or when new data is received to update the remote mobile terminal through the embedded applet, the operations including a) querying a keyed hash table for corresponding data; b) determining whether the queried data differs from data currently displayed on the remote mobile terminal; c) sending the queried data to the remote mobile terminal when the queried data differs from the data currently displayed on the remote mobile terminal; and d) not sending the queried data to the remote mobile terminal when the queried data does not differ from the data currently displayed on the remote mobile terminal; and

~~a web engine server module configured to~~ communicate formatted data to the remote mobile terminal based on the queried data.

36. **(Currently Amended)** The apparatus of claim 35, wherein the executable instructions further cause the apparatus to: ~~the source filter server module is configured to:~~

access the keyed hash table containing a plurality of prior real-time data values using a plurality of keys associated with a plurality of later real-time data values;

determine whether the plurality of later real-time data values includes changes over the prior plurality of real-time data values contained in the keyed hash table; and

update the prior plurality real-time data values contained in the keyed hash table based on the determined changes.

Art Unit: 2442

37. **(Currently Amended)** The apparatus of claim 36, wherein the executable instructions further cause the apparatus to: ~~the web engine server module is configured to:~~

retrieve a portfolio selected by a user;

generate an activated HTML page containing the ~~an~~-embedded applet for the portfolio; and

download the activated HTML page to the remote mobile terminal.

38. **(Currently Amended)** The apparatus of claim 36, wherein the executable instructions further cause the apparatus to: ~~the real-time data server module is configured to:~~

monitor the plurality of keys; and

identify currently active keys of said plurality of keys.

39. **(Currently Amended)** The apparatus of claim 38, wherein the executable instructions further cause the apparatus to: ~~the real-time data server module is configured to:~~

read the currently active keys;

determine if the currently active keys have changed;

update the keyed hash table with real-time data values for the currently active keys; and

download the updated real-time values for the currently active keys to the remote mobile terminal.

40. **(Currently Amended)** The apparatus of claim 39, wherein the executable instructions further cause the apparatus to: ~~the real-time data server module is configured to:~~

determine whether a shutdown request was made; and

disconnect all connections to the remote mobile terminal in response to the shutdown request.

Reasons For Allowance

The following is an examiner's statement of reasons for allowance: The prior art was not found to anticipate or make obvious an embedded applet that performs the transactions as claimed by the applicant.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DOUGLAS B. BLAIR whose telephone number is (571)272-3893. The examiner can normally be reached on 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on (571) 272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2442

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Douglas B Blair/
Primary Examiner, Art Unit 2442